C-CLAMPS

CRITERIA FOR USE

Based on the results of field testing, C-clamps in conjunction with angles-clamped to beams, will be permitted for transmitting longitudinal forces in accordance with the criteria contained in this memo.

RESTRICTIONS FOR USE

The use of approved C-clamps is to be in conformance with the following:

A. For clamping constant thickness flanges, angle legs or plates connecting steel sections. They are not to be used in conjunction with beveled or sloping surfaces.

B. When used as shown in Figure 1, clamps may resist longitudinal forces at a maximum value of 3,000 pounds per clamp and may be used on either, or both, sides of caps.

C. For resisting the specified 500 pound force in any direction.

D. A C-clamp used to resist longitudinal forces may not be used to resist other forces also. Similarly, a clamp used to resist a 500 pound force may not be used to resist other forces.

E. Clamps used to connect steel beam stringers to steel caps (to resist a 500 pound force) are to be placed on the heaviest loaded span side of falsework stingers. Clamps are not to be installed on the tail end of beams or stringers.

F. Beams and caps shall not be clamped together to resist longitudinal forces.

G. C-clamps are to be torque tightened to 90 foot-pounds,

RESTRICTIONS ON C-CLAMPS

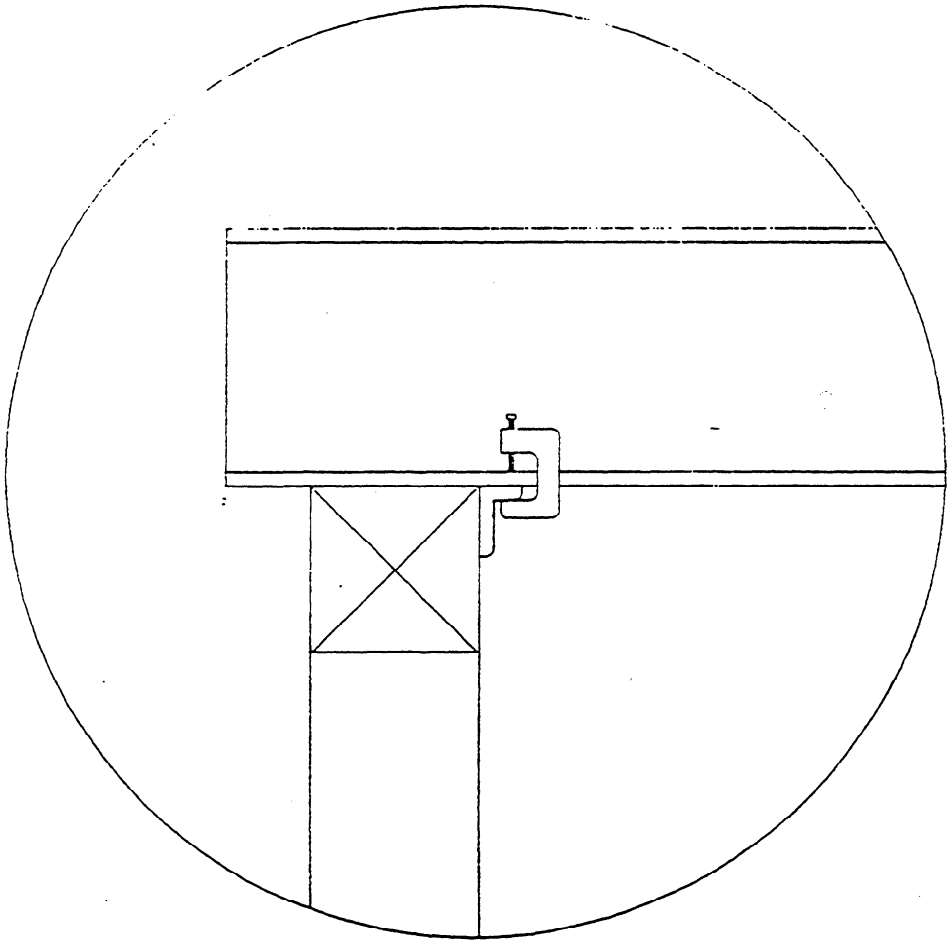
C-clamps permitted for use shall conform to the following:

A . Commercial heavy duty service pattern clamps (generally drop forged premium quality steel) with not less that a 10,000 pound load limit.

B . C-clamp must remain in the elastic range while withstanding a torque of 90 foot-pounds load on the bolt.

C . Bolt diameter is to be not less than 3/4 inch with a hardened cup end.

D . Non-commercial C-clamps shall conform to those same. restrictions, Figure 2 depicts an approved non-commercial C-clamp.



1 OF 2 C-CLAMPS HOLDING ANGLE TO BOTTOM FLANGE OF BEAM (ONE EACH SIDE)

FIGURE 1

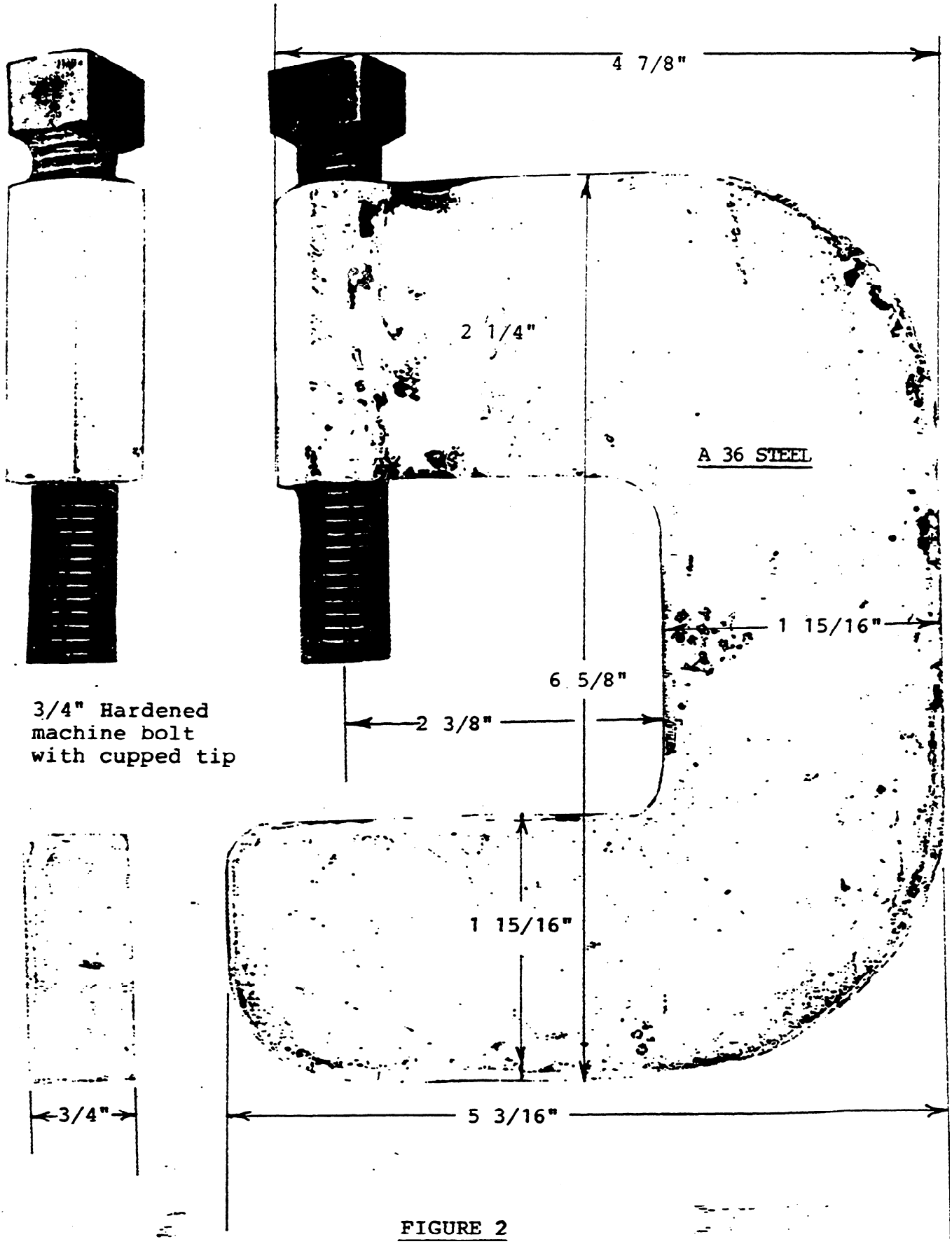

4 7/8"
2 1/4"
A 36 STEEL
1 15/16"
6 5/8"
2 3/8"
3/4" Hardened
machine bolt
with cupped tip
1 15/16"
3/4"
5 3/16"

FIGURE 2